

IN THE CLAIMS:

1. (Currently amended) An implantable or insertable medical device adapted to provide a controlled change in mechanical properties and biomechanical compatibility after being implanted or inserted into a patient comprising:

(a) a biodegradable inner core material; and

(b) a biodegradable covering material completely covering the inner core material as a coating thereon;

wherein:

(i) the biodegradable inner core material is selected from a metallic material and a ceramic material,

(ii) the covering material substantially controls the rate at which the inner core material becomes flexible upon contact with bodily fluids,

(iii) after insertion or implantation into a patient, the medical device becomes decreasingly rigid and increasingly biomechanically compatible with body tissue in contact with the device over time,

(iv) said biodegradable covering material and any optional additional coating layer does not contain therein a therapeutic agent, and

(v) the medical device is substantially biodegradable by the body.

2. (Canceled)

3. (Previously presented) The medical device of claim 1, wherein the inner core material becomes increasingly flexible upon contact with body fluids.

4. (Canceled)

5. (Previously presented) The medical device of claim 1, wherein the covering material is a hydrophobic surface erodable polymer.

6. (Previously presented) The medical device of claim 1, wherein the covering material is a polymer.
7. (Original) The medical device of claim 6 wherein the polymer is a shape memory biodegradable polymer.
8. (Canceled)
9. (Previously presented) The medical device of claim 1, wherein the inner core material comprises a metallic core.
10. (Previously presented) The medical device of claim 1, wherein the inner core material comprises a ceramic core.
11. (Previously presented) The medical device of claim 1, wherein the inner core material comprises a monofilament core.
12. (Previously presented) The medical device of claim 1, wherein the inner core material comprises a multifilament core.
13. (Original) The medical device of claim 12, wherein the multifilament core comprises woven or braided filaments.
14. (Previously presented) The medical device of claim 1, wherein the inner core material comprises a tubular structure.
15. (Original) The medical device of claim 14, wherein the tubular structure is micromachined or laser-cut.
16. (Canceled)

17. (Currently amended) The medical device of claim 1, further comprising one or more of said coating layers.
18. (Canceled)
19. (Original) The medical device of claim 1, which is an intraluminal stent.
20. (Original) The medical device of claim 19, wherein the intraluminal stent is selected from the group consisting of coronary, biliary, tracheal, gastrointestinal, urethral, ureteral and esophageal stents.
21. (Original) The medical device of claim 20, wherein the stent is a self-expandable or balloon-expandable coronary stent.
- 22-45. (Canceled)
46. (Previously presented) The medical device of claim 1, wherein said medical device is a coronary stent that maintains adequate rigidity to insure lumen patency for a period of from about three to about six months following implantation and that is completely biodegradable within about six months to one year following implantation.
47. (Previously presented) The medical device of claim 1, wherein said medical device is an esophageal stent that maintains adequate rigidity to keep an esophageal stricture open for about one to about three months following implantation and that is completely biodegradable within about three months to six months following implantation.
48. (Previously presented) The medical device of claim 5, wherein said surface erodible polymer is selected from a polyamide, a polyorthoester and a polyanhydride.
49. (Previously presented) The medical device of claim 5, wherein said surface erodible polymer is a polyanhydride.

50. (Previously presented) The medical device of claim 49, wherein said polyanhydride is an aromatic polyanhydride.